



**ALLIED MACHINE
& ENGINEERING**

WOHLHAUPTER®

Holemaking Solutions for Today's Manufacturing



Drilling



Reaming



Burnishing



Threading



Specials



Wohlhaupter®

▶ **BORING**

Large Diameter Boring Tools

WOHLHAUPTER®

SECTION

B10-G

Large Diameter Boring

Wohlhaupter® Large Diameter Boring

Basic D 40 | Basic D 60 | Eco D 60 | Flex D 60

▶ Diameter Range: 200.00 mm - 3255.00 mm



Boring Big?

Wohlhaupter has continued to expand our large diameter boring capabilities with Alu-Line. Our Alu-Line serrated slides and tool bodies are made of lightweight aluminium alloy to minimise the weight while still getting the heavy boring job done. The versatile serrated slides and serrated tool bodies allow for boring 200.00 mm up to 3255.00 mm, offering the most powerful and versatile tool ranges to our customers.

Your safety and the safety of others is very important. This catalogue contains important safety messages. Always read and follow all safety precautions.



This triangle is a safety hazard symbol. It alerts you to potential safety hazards that can cause tool failure and serious injury.

When you see this symbol in the catalogue, look for a related safety message that may be near this triangle or referred to in the nearby text.

There are safety signal words also used in the catalogue. Safety messages follow these words.

⚠ WARNING

WARNING (shown above) means that failure to follow the precautions in this message could result in tool failure and serious injury.

NOTICE means that failure to follow the precautions in this message could result in damage to the tool or machine but not result in personal injury.

NOTE and **IMPORTANT** are also used. These are important that you read and follow but are not safety-related.

Visit www.alliedmachine.com for the most up-to-date information and procedures.

Applicable Industries



Aerospace



Agriculture



Automotive



Firearms



General
Machining



Oil & Gas

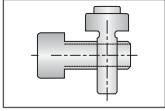


Renewable
Energy

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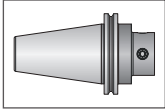
Reference Icons

The following icons will appear throughout the catalogue to help you navigate between products.



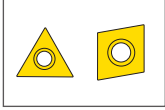
Clamping Elements

For use with insert holders and boring heads



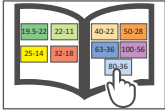
Shanks

A variety of shanks for different machines



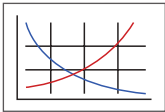
Inserts

For use with insert holder boring heads and boring bars using indexable inserts



MVS Connection Colour Guide

Detailed instructions and information regarding the MVS connection(s)



Recommended Cutting Data

Speed and feed recommendations for optimum and safe boring



Through Coolant Option

Indicates that the product is through coolant

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Series	Diameter Range
	Metric (mm)
Basic D 40 Slides	200.00 - 520.00
Basic D 60 Slides	200.00 - 505.00
Eco D 60 Slides	465.00 - 1020.00
Flex D 60 Slides	500.00 - 3255.00

Large Diameter Boring Product Overview

Large Diameter BORING

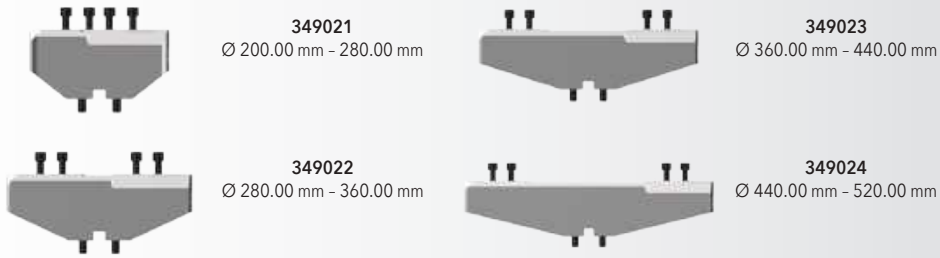
Boring big? We've got you covered.

Our versatile tooling system can provide the power and precision your large diameter boring jobs demand. The large diameter boring system offers four different Alu-Line serrated slides, a wide range of rough and finish boring insert holders, vernier and digital cassettes, and combined rough and finish insert holders.

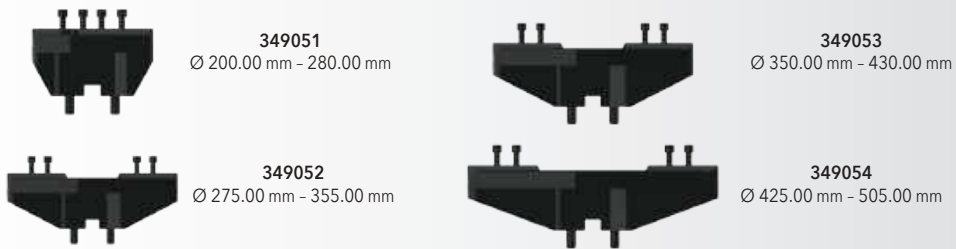
- Diameter range: 200.00 mm - 3255.00 mm.
- Basic, Eco, and Flex serrated slides.
- Roughing, finishing, or combined roughing and finishing can be achieved in one pass.
- Digital readout cassettes available for quick and easy adjustments.
- Alu-Line serrated slides and tool bodies are made of lightweight aluminium.



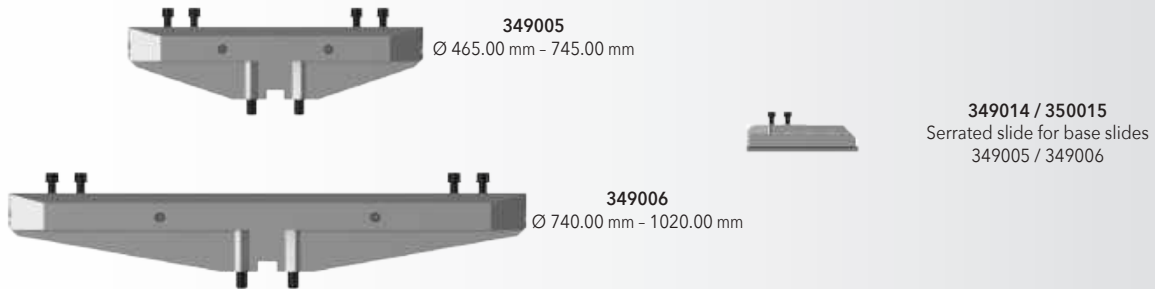
► **Basic D 40 Serrated Slides for Finish Boring**



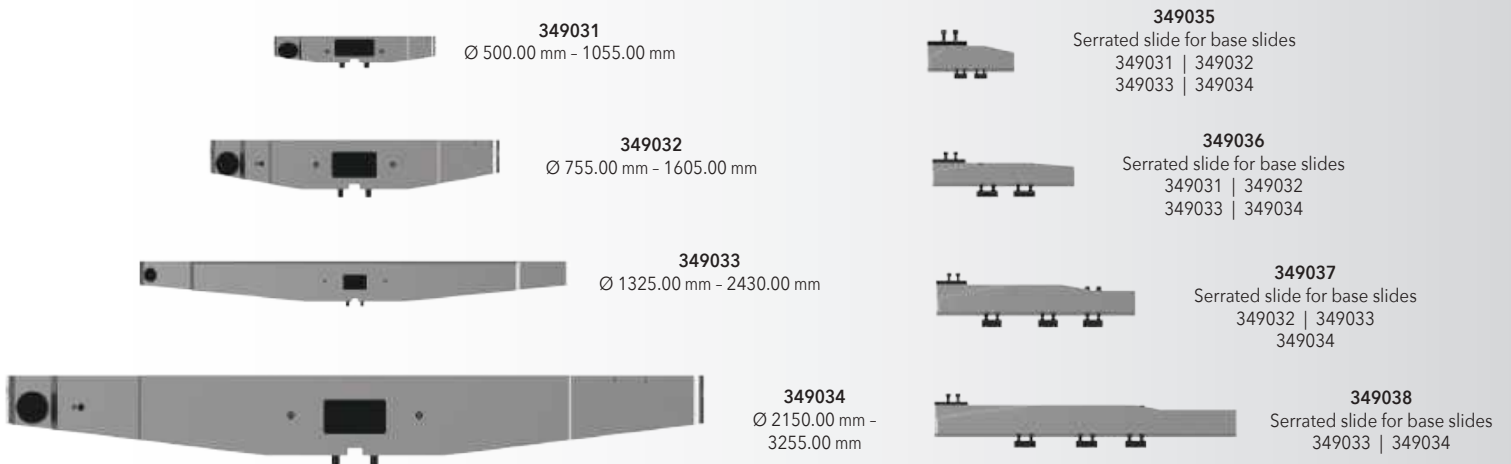
► **Basic D 60 Serrated Slides for Rough and Finish Boring**



► **Eco D 60 Serrated Slides for Rough and Finish Boring**

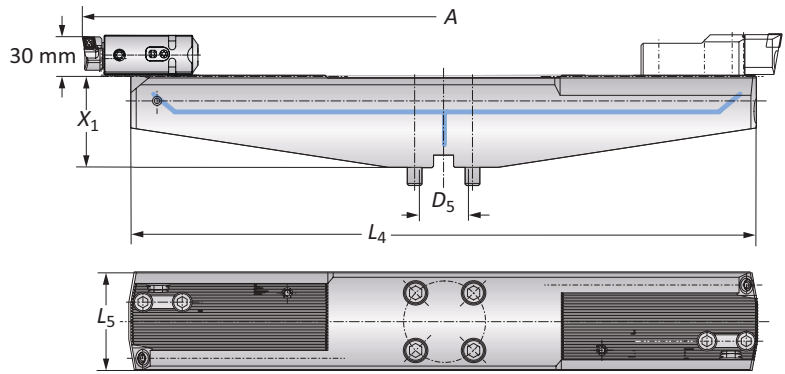


► **Flex D 60 Serrated Slides for Rough and Finish Boring**

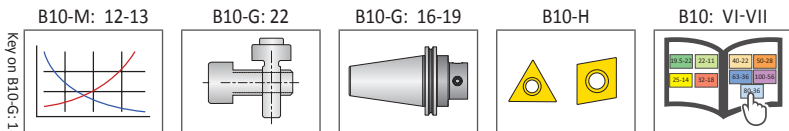


Alu-Line Basic D 40 Serrated Slides

Diameter Range: 200.00 mm - 520.00 mm



	Connection	Boring Range	Serrated Slide			Weight	Part No.
	D_5	A	X_1	L_4	L_5		
Ⓜ	D 40	200.00 - 280.00	75.00	190.00	80.00	2.80 (kg)	349021
	D 40	280.00 - 360.00	75.00	270.00	80.00	3.80 (kg)	349022
	D 40	360.00 - 440.00	75.00	350.00	80.00	5.00 (kg)	349023
	D 40	440.00 - 520.00	75.00	430.00	80.00	6.00 (kg)	349024



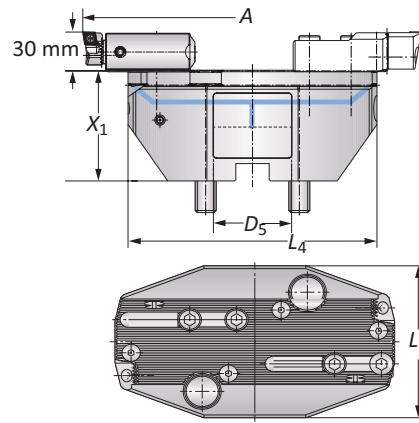
Ⓜ = Metric (mm)

⚠ WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:
 -Consult machine tool builder for machine's weight limitations.
 -Refer to example on page B10-M: 11 for calculating tool assembly weight.
 Factory technical assistance is also available for specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

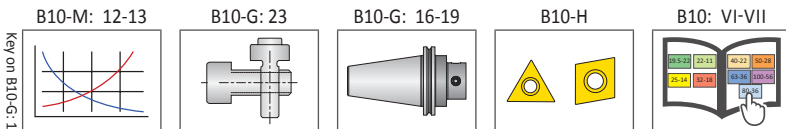
⚠ WARNING Tool failure can cause serious injury. To prevent:
 -Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
 -When using Alu-Line® components, do not exceed recommended 5xD length-to-diameter ratio.
 -When using tool steel components, do not exceed recommended 6xD length-to-diameter ratio.
 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
 Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

Alu-Line Basic D 60 Serrated Slides

Diameter Range: 200.00 mm - 505.00 mm



Connection	Boring Range	Serrated Slide			Weight	Part No.	
		D_5	A	X_1			L_4
M	D 60	200.00 - 280.00	85.00	191.00	110.00	4.10 (kg)	349051
	D 60	275.00 - 355.00	85.00	264.00	110.00	5.20 (kg)	349052
	D 60	350.00 - 430.00	85.00	339.00	125.00	6.90 (kg)	349053
	D 60	425.00 - 505.00	85.00	414.00	125.00	8.00 (kg)	349054



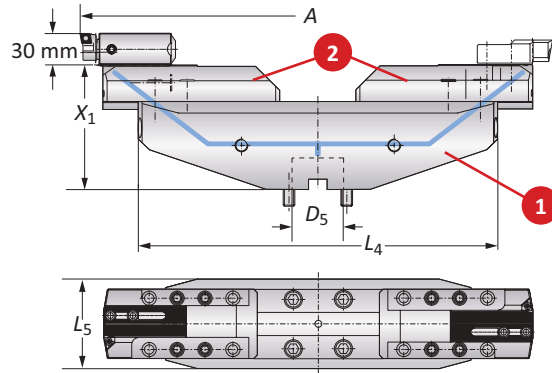
M = Metric (mm)

WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:
 -Consult machine tool builder for machine's weight limitations.
 -Refer to example on page B10-M: 11 for calculating tool assembly weight.
 Factory technical assistance is also available for specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

WARNING Tool failure can cause serious injury. To prevent:
 -Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
 -When using Alu-Line® components, do not exceed recommended 5xD length-to-diameter ratio.
 -When using tool steel components, do not exceed recommended 6xD length-to-diameter ratio.
 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
 Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

Alu-Line Eco D 60 Serrated Slides

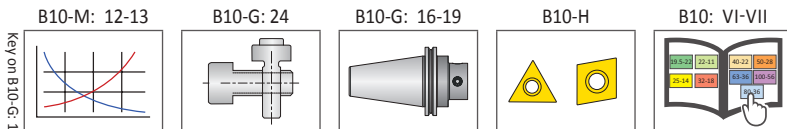
Diameter Range: 465.00 mm - 1020.00 mm



Connection	Boring Range	Serrated Slide			1 Base Slide		2 Serrated Slide (Alu-Line)*		2 Serrated Slide (steel)**		
		D_5	A	X_1	L_4	L_5	Weight	Part No.	Weight	Part No.	Weight
m	D 60	465.00 - 745.00	155.00	447.00	129.00	11.80 (kg)	349005	2.20 (kg)	349015	5.70 (kg)	349014
	D 60	740.00 - 1020.00	155.00	722.00	129.00	18.00 (kg)	349006	2.20 (kg)	349015	5.70 (kg)	349014

*Finish boring: serrated slide in Alu-Line.

**Rough boring: serrated slide in steel.



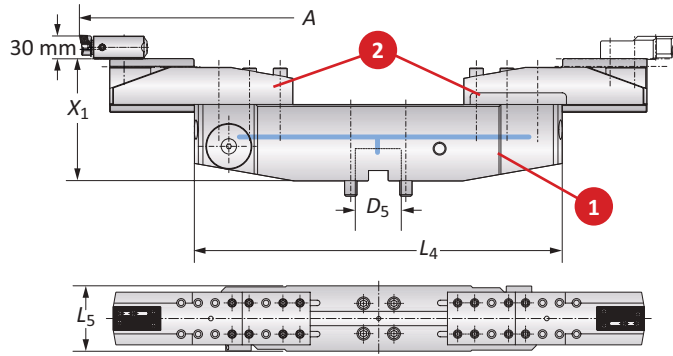
m = Metric (mm)

⚠ WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:
 -Consult machine tool builder for machine's weight limitations.
 -Refer to example on page B10-M: 11 for calculating tool assembly weight.
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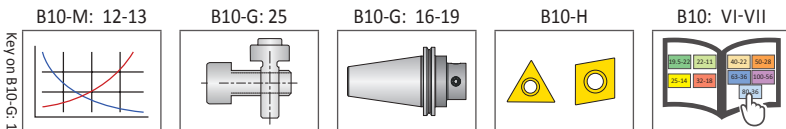
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 -Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
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 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
 Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

Alu-Line Flex D 60 Serrated Slides

Diameter Range: 500.00 mm - 3255.00 mm



Connection	Boring Range	Serrated Slide			Weight (1 + 2)	Part No.		
		D_5	A	X_1		L_4	L_5	1 Base Slide
m	D 60	500.00 - 780.00	160.00	480.00	130.00	24.20 (kg)	349031	349035
	D 60	950.00 - 1055.00	185.00	480.00	130.00	41.30 (kg)	349031	349036
	D 60	775.00 - 1055.00	185.00	755.00	155.00	42.50 (kg)	349032	349035
	D 60	1050.00 - 1330.00	210.00	755.00	155.00	59.60 (kg)	349032	349036
	D 60	1442.00 - 1605.00	225.00	755.00	155.00	86.30 (kg)	349032	349037
	D 60	1325.00 - 1605.00	210.00	1305.00	185.00	88.20 (kg)	349033	349035
	D 60	1325.00 - 1880.00	235.00	1305.00	185.00	105.30 (kg)	349033	349036
	D 60	1600.00 - 2155.00	250.00	1305.00	185.00	132.00 (kg)	349033	349037
	D 60	1990.00 - 2430.00	255.00	1305.00	185.00	169.80 (kg)	349033	349038
	D 60	2150.00 - 2430.00	235.00	2130.00	225.00	192.50 (kg)	349034	349035
	D 60	2150.00 - 2705.00	260.00	2130.00	225.00	209.60 (kg)	349034	349036
	D 60	2150.00 - 2980.00	275.00	2130.00	225.00	236.00 (kg)	349034	349037
	D 60	2150.00 - 3255.00	280.00	2130.00	225.00	274.00 (kg)	349034	349038



m = Metric (mm)

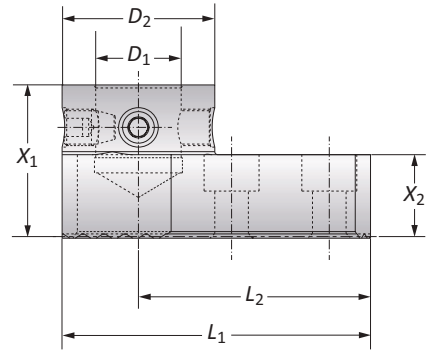
⚠ WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:
 -Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
 -Consult machine tool builder for machine's weight limitations.
 -Refer to example on page B10-M: 11 for calculating tool assembly weight.
 Factory technical assistance is also available for specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

⚠ WARNING Tool failure can cause serious injury. To prevent:
 -Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
 -When using Alu-Line® components, do not exceed recommended 5xD length-to-diameter ratio.
 -When using tool steel components, do not exceed recommended 6xD length-to-diameter ratio.
 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
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Serrated Adapter with MVS Connection

Mounting Adapter

MVS Connection	Mounting Adapters				Weight	Part No.
	D_2 D_1	X_1	X_2	L_1		
m 50 - 28	50.00	27.00	101.00	76.00	1.30 (kg)	349046



Inside Boring

Slide	Boring Heads	ID Bore Range mm
349051	310005/464006/564045	215.00 - 313.00
349052	310005/464006/564045	290.00 - 388.00
349053	310005/464006/564045	365.00 - 463.00
349054	310005/464006/564045	440.00 - 538.00
349005 with 349015	310005/464006/564045	480.00 - 778.00

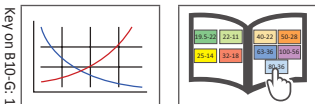
Outside Boring

Slide	Boring Heads	OD Bore Range mm
349051	310005/464006/565045	67.00 - 165.00
349052	310005/464006/565045	142.00 - 240.00
349053	310005/464006/565045	217.00 - 315.00
349054	310005/464006/565045	292.00 - 390.00
349005 with 349015	310005/464006/565045	332.00 - 630.00

NOTE: LH only spindle rotation.

B10-M: 12-13

B10: VI-VII



m = Metric (mm)

⚠ WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:


- Consult machine tool builder for machine's weight limitations.
 - Refer to example on page B10-M: 11 for calculating tool assembly weight.
- Factory technical assistance is also available for specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

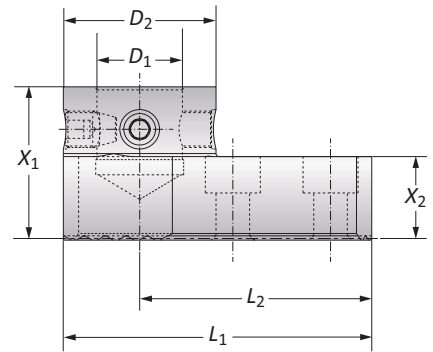
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 - When using tool steel components, do not exceed recommended 6xD length-to-diameter ratio.
 - When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 - When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 - When using a NOVI^{TECH}® module, do not exceed recommended 10xD length-to-diameter ratio.
 - Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
- Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

Serrated Adapter with MVS Connection

Mounting Adapter

MVS Connection	Mounting Adapters				Weight	Part No.
	D_2 D_1	X_1	X_2	L_1		
 50 - 28	50.00	27.00	101.00	76.00	1.30 (kg)	349046



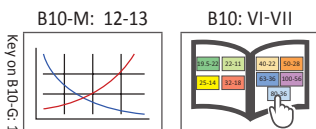
Inside Boring

Slide	Boring Heads	ID Bore Range mm
349051	310005/464006/564045	65.00 - 128.00
349052	310005/464006/564045	105.00 - 203.00
349053	310005/464006/564045	180.00 - 278.00
349054	310005/464006/564045	255.00 - 353.00
349005 with 349015	310005/464006/564045	295.00 - 593.00

Outside Boring

Slide	Boring Heads	OD Bore Range mm
349051	310005/464006/564045	-
349052	310005/464006/564045	0.00 - 55.00
349053	310005/464006/564045	32.00 - 130.00
349054	310005/464006/564045	107.00 - 205.00
349005 with 349015	310005/464006/564045	147.00 - 445.00

NOTE: LH only spindle rotation.



 = Metric (mm)

⚠ WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:
 -Consult machine tool builder for machine's weight limitations.
 -Refer to example on page B10-M: 11 for calculating tool assembly weight.
 Factory technical assistance is also available for specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

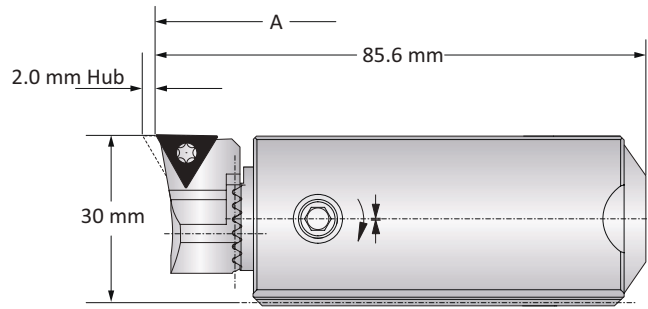
⚠ WARNING Tool failure can cause serious injury. To prevent:
 -Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
 -When using Alu-Line® components, do not exceed recommended 5xD length-to-diameter ratio.
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 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
 Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

537 Analogue Cassettes

Diameter Range: 100.00 mm - 3255.00 mm

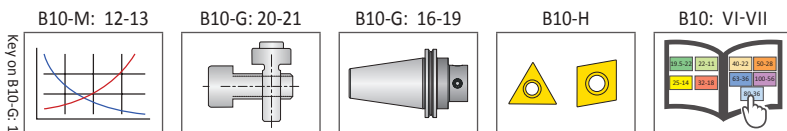


Form 101



Form 20

Slide Type	Boring Range		Insert Form	Part No.		
	A	Weight		Insert Holder	Clamping Piece	Cassette
Serrated Tool Bodies	100.00 - 205.00	0.60 (kg)	20	210020	137026	537051
	100.00 - 205.00	0.60 (kg)	101	210063	137026	537051
	100.00 - 205.00	0.60 (kg)	103	210064	137026	537051
Basic / Eco Slides	200.00 - 1020.00	0.60 (kg)	20	210020	137027	537051
	200.00 - 1020.00	0.60 (kg)	101	210063	137027	537051
	200.00 - 1020.00	0.60 (kg)	103	210064	137027	537051
Flex Slides	500.00 - 3255.00	0.60 (kg)	20	210020	137019	537051
	500.00 - 3255.00	0.60 (kg)	101	210063	137019	537051
	500.00 - 3255.00	0.60 (kg)	103	210064	137019	537051



m = Metric (mm)

Inserts sold separately

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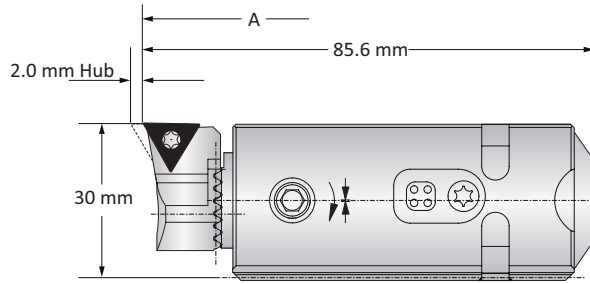
⚠ WARNING Tool failure can cause serious injury. To prevent:
 -Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
 -When using Alu-Line® components, do not exceed recommended 5xD length-to-diameter ratio.
 -When using tool steel components, do not exceed recommended 6xD length-to-diameter ratio.
 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
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537 Digital Cassettes with 3E^{TECH+}

Diameter Range: 100.00 mm - 3255.00 mm



Form 101



Form 20

Slide Type	Boring Range		Insert Form	Part No.		
	A	Weight		Insert Holder	Clamping Pieces	Cassette
Serrated Tool Bodies	100.00 - 205.00	0.60 (kg)	20	210020	137026	537052
	100.00 - 205.00	0.60 (kg)	101	210063	137026	537052
	100.00 - 205.00	0.60 (kg)	103	210064	137026	537052
Basic / Eco Slides	200.00 - 1020.00	0.60 (kg)	20	210020	137027	537052
	200.00 - 1020.00	0.60 (kg)	101	210063	137027	537052
	200.00 - 1020.00	0.60 (kg)	103	210064	137027	537052
Flex Slides	500.00 - 3255.00	0.60 (kg)	20	210020	137019	537052
	500.00 - 3255.00	0.60 (kg)	101	210063	137019	537052
	500.00 - 3255.00	0.60 (kg)	103	210064	137019	537052

3E^{TECH+} Digital Readout Module

Part No.	Charging Unit*
536015	536016

NOTE: WEEE-Reg.-Nr. DE 15820388

*Charging unit sold separately.



NOTE: 3E^{TECH+} adjustment accuracy of 0.001 mm on diameter.

Key on B10-G-1

B10-M: 12-13

B10-G: 20-21

B10-G: 16-19

B10-H

B10: VI-VII

 = Metric (mm)

Inserts sold separately

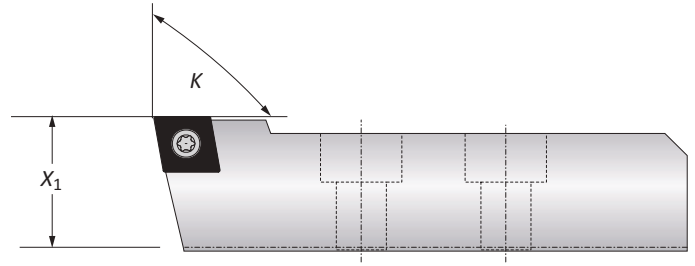
⚠ WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:
 -Consult machine tool builder for machine's weight limitations.
 -Refer to example on page B10-M: 11 for calculating tool assembly weight.
 Factory technical assistance is also available for specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

⚠ WARNING Tool failure can cause serious injury. To prevent:
 -Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
 -When using Alu-Line® components, do not exceed recommended 5xD length-to-diameter ratio.
 -When using tool steel components, do not exceed recommended 6xD length-to-diameter ratio.
 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
 Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

Insert Holders for Rough Machining

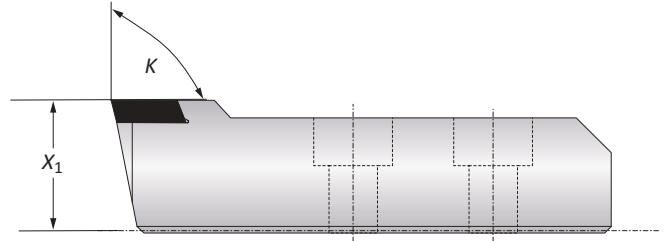
90° Insert Holders

Insert Holder		Weight	ISO Code	Insert Form	Part No.
K	X ₁				
m	90° 30.00	0.60 (kg)	CC..09T3..	103	149090
	90° 30.00	0.60 (kg)	CC..1204..	104	149099
	90° 29.30	0.60 (kg)	CC..1204..	104	149083
	90° 30.00	0.60 (kg)	CC..1605..	105	149093



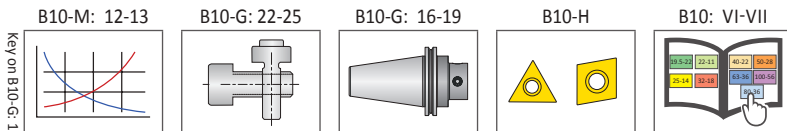
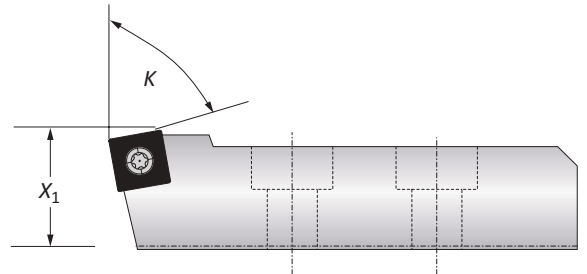
90° Tangential Insert Holders

Insert Holder		Weight	ISO Code	Insert Form	Part No.
K	X ₁				
m	90° 30.00	0.60 (kg)	Tangential	05	149010
	90° 29.30	0.60 (kg)	Tangential	05	149020



80° Insert Holders

Insert Holder		Weight	ISO Code	Insert Form	Part No.
K	X ₁				
m	80° 30.00	0.60 (kg)	SC..1204..	113	149089
	80° 30.00	0.60 (kg)	SC..150512	114	149094
	80° 30.00	0.60 (kg)	SN..1506..	134	149096



m = Metric (mm)

Inserts sold separately

WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:

- Consult machine tool builder for machine's weight limitations.
 - Refer to example on page B10-M: 11 for calculating tool assembly weight.
- Factory technical assistance is also available for specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

WARNING Tool failure can cause serious injury. To prevent:

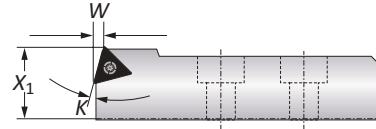
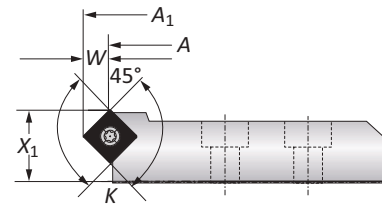
- Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
 - When using Alu-Line® components, do not exceed recommended 5xD length-to-diameter ratio.
 - When using tool steel components, do not exceed recommended 6xD length-to-diameter ratio.
 - When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 - When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 - When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
- Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

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Insert Holders for Rough Machining | Boring Range Examples

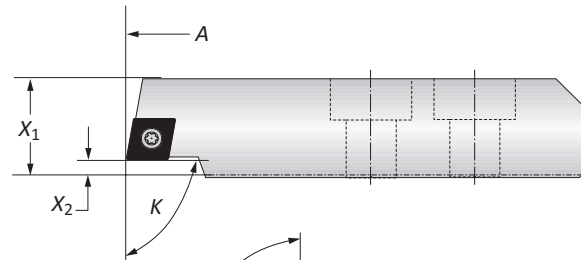
Chamfering Insert Holders

		Insert Holder				Weight	ISO Code	Insert Form	Part No.
		K	X ₁	A / A ₁	W				
m	15°	30.00	+7.00	4.00	0.60 (kg)	TC..16T3..	163	201065	
	20°	30.00	+9.00	5.30	0.60 (kg)	TC..16T3..	163	201025	
	30°	30.00	+14.00	7.70	0.60 (kg)	TC..16T3..	163	201075	
	45°	30.00	+20.00	9.90	0.60 (kg)	SC..1505..	114	201015	



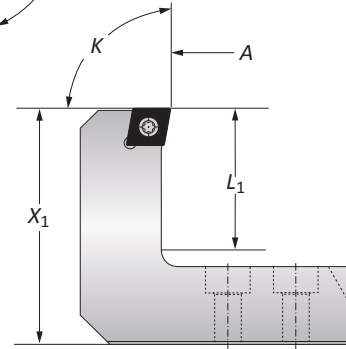
Back-Boring Insert Holders

		Insert Holder				Weight	ISO Code	Insert Form	Part No.
		K	X ₁	X ₂	A				
m	90°	30.00	5.00	+40.00	0.80 (kg)	CC..1204..	104	251010	
	90°	30.00	5.00	+75.00	0.90 (kg)	CC..1204..	104	251011	



OD Turning Insert Holders

		Insert Holder				Weight	ISO Code	Insert Form	Part No.
		K	X ₁	L ₁	A				
m	90°	90.00	62.00	-50.00	1.00 (kg)	CC..1204..	104	149040	

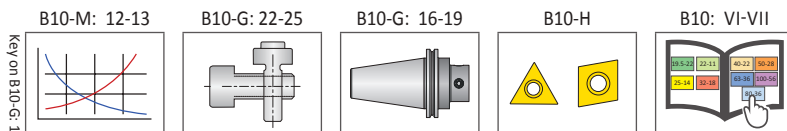


Boring Range Examples

		Serrated Slide		Insert Holder		
		Part No.	Bore Range	Part No.	Modified Bore Range	Total Bore Range
m		349051	200.00 - 280.00	201065	+7.00	207.00 - 287.00
		349051	200.00 - 280.00	251010	+40.00	240.00 - 320.00
		349051	200.00 - 280.00	149040	-50.00	150.00 - 230.00

NOTE: Boring range for serrated slides or base slides are found on pg. B10-G: 4 - 7.

NOTE: Additional insert holders available upon request.



m = Metric (mm)

Inserts sold separately

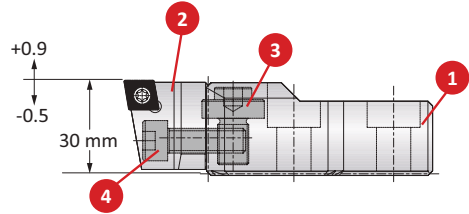
WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:

- Consult machine tool builder for machine's weight limitations.
- Refer to example on page B10-M: 11 for calculating tool assembly weight.
- Factory technical assistance is also available for specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

WARNING Tool failure can cause serious injury. To prevent:

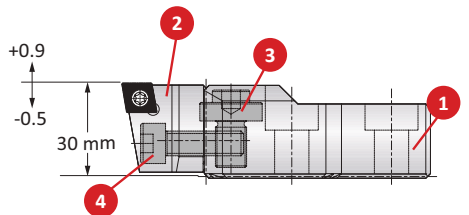
- Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank).
- When using Alu-Line® components, do not exceed recommended 5xD length-to-diameter ratio.
- When using tool steel components, do not exceed recommended 6xD length-to-diameter ratio.
- When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
- When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
- When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
- Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
- Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

Insert Holders for Height Adjustments and Axial Grooving



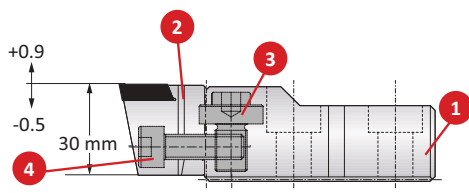
Insert Form 103

Boring Range	1 Support		2 Insert Holder		3 Adjusting Screw		4 Fixing Screw	
	Part No.	Insert Form	Part No.	Part No.	Service Key	Part No.	Service Key	
200.00 - 3255.00	149055	103	149058	315355	s6 / B	070369	s6 / B	



Insert Form 104

Boring Range	1 Support		2 Insert Holder		3 Adjusting Screw		4 Fixing Screw	
	Part No.	Insert Form	Part No.	Part No.	Service Key	Part No.	Service Key	
200.00 - 3255.00	149055	104	149056	315355	s6 / B	070369	s6 / B	

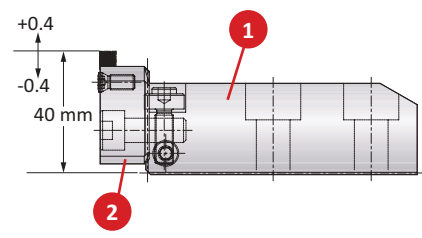


Insert Form 05

Boring Range	1 Support		2 Insert Holder		3 Adjusting Screw		4 Fixing Screw	
	Part No.	Insert Form	Part No.	Part No.	Service Key	Part No.	Service Key	
200.00 - 3255.00	149055	05	149085	315355	s6 / B	070369	s6 / B	

Insert Holder for Axial Grooving

Insert Holder	1 Support	2 Insert Holder	Weight	Insert Form
X_1	Part No.	Part No.		
40.00	226014	226031	0.30 (kg)	304



Key on B10-G-1

B10-M: 12-13

B10-G: 22-25

B10-G: 16-19

B10-H

B10: VI-VII

= Metric (mm)

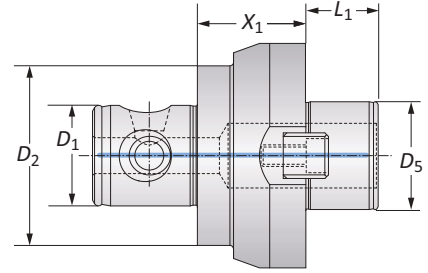
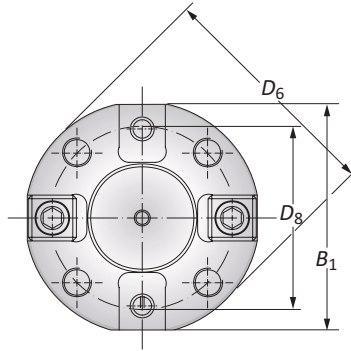
Inserts sold separately

⚠ WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:
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 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
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MVS Holding Arbors D 40 / D 60



MVS Connection	Holding Arbor Connection	Holding Arbor						Weight	Part No.
		X_1	L_1	D_5	D_6	D_8	B_1		
$D_2 D_1$									
80 - 36	D 40 Alu-Line	19.00	30.00	40.00	89.00	66.70	80.00	0.50 (kg)	309001 ⁽¹⁾⁽²⁾
80 - 36	D 60	60.00	40.00	60.00	129.10	101.60	125.00	4.10 (kg)	209060 ⁽¹⁾
100 - 56	D 40 Alu-Line	30.00	30.00	40.00	89.00	66.70	80.00	1.00 (kg)	309041 ⁽²⁾
100 - 56	D 60	60.00	40.00	60.00	129.10	101.60	125.00	6.30 (kg)	209043
100 - 56	D 60 Alu-Line	60.00	40.00	60.00	129.10	101.60	125.00	2.20 (kg)	309043 ⁽²⁾

(1) For light machining only.

(2) Lightweight aluminium construction only in connection with our serrated slides:

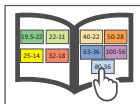
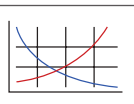
Basic D 40 Serrated Slides: \varnothing 200.00 mm - 520.00 mm (Page B10-G: 4).

Basic D 60 Serrated Slides: \varnothing 200.00 mm - 505.00 mm (Page B10-G: 5).

B10-M: 12-13

B10: VI-VII

Key on B10-G: 1



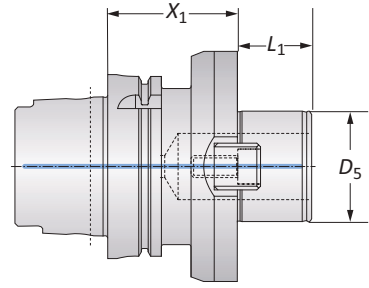
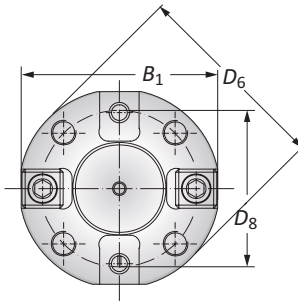
m = Metric (mm)

WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:
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 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
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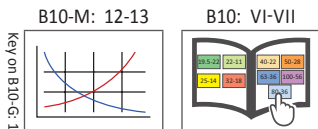
Master Shanks D 40 / D 60

HSK-A (DIN 69 893) Shanks



HSK-A (DIN 69 893) Shanks

Taper Size	Connection	Shank							Weight	Part No.
		X_1	L_1	D_5	D_6	D_8	B_1			
m	63	D 40	60.00	30.00	40.00	89.00	66.70	80.00	1.90 (kg)	358015
	100	D 40	60.00	30.00	40.00	89.00	66.70	80.00	3.60 (kg)	258021
	100	D 60	70.00	40.00	60.00	129.10	101.60	125.00	5.20 (kg)	258061
	100	D 60	70.00	40.00	60.00	129.10	101.60	110.00	5.00 (kg)	258098



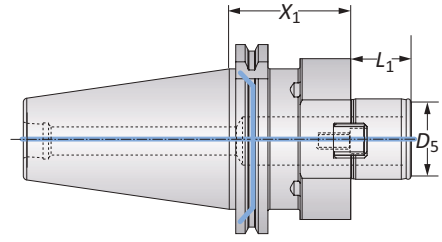
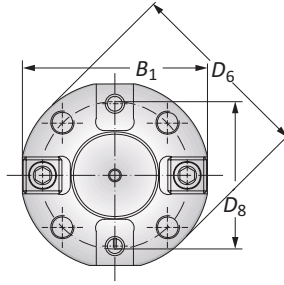
m = Metric (mm)

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 -Refer to example on page B10-M: 11 for calculating tool assembly weight.
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⚠ WARNING Tool failure can cause serious injury. To prevent:
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 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
 Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

Master Shanks D 40

CAT 50 Shank with Metric Threads



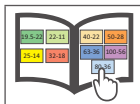
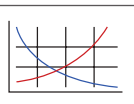
CAT 50 Shanks with Metric Threads

Taper Size	Connection	Shank						Weight	Part No.
		X_1	L_1	D_5	D_6	D_8	B_1		
 50	D 40	60.00	30.00	40.00	89.00	66.70	80.00	4.60 (kg)	326083

B10-M: 12-13

B10: VI-VII

Key on B10-G: I



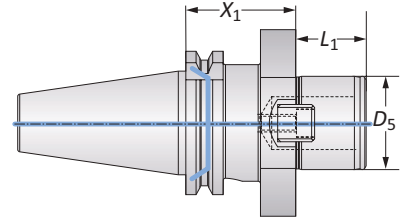
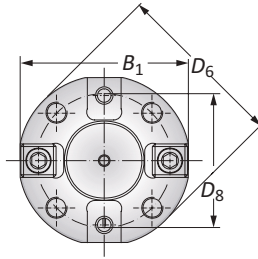
 = Metric (mm)

⚠ WARNING Exceeding weight capacity for machine tool spindle and tool changer can cause machine damage and/or serious injury. To prevent:
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 -Refer to example on page B10-M: 11 for calculating tool assembly weight.
 Factory technical assistance is also available for specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

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 -When using heavy metal components, do not exceed recommended 8xD length-to-diameter ratio.
 -When using a carbide shank, do not exceed recommended 9xD length-to-diameter ratio.
 -When using a NOVITECH® module, do not exceed recommended 10xD length-to-diameter ratio.
 -Refer to examples on pages B10-M: 8-10 for calculating length-to-diameter ratio.
 Factory technical assistance is available for your specific applications through our Application Engineering department. *email: engineering.eu@alliedmachine.com*

Master Shanks D 40 / D 60

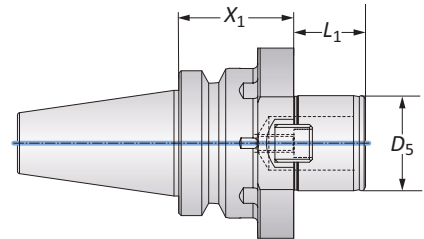
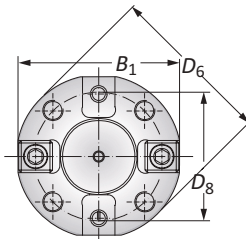
SK (DIN 69 871-AD/B) | BT / JIS B 6339 Shanks



SK (DIN 69 871-AD/B) Shanks

Taper Size	Connection	Shank							Weight	Part No.
		X_1	L_1	D_5	D_6	D_8	B_1			
40	D 40	50.00	30.00	40.00	89.00	66.70	80.00	1.90 (kg)	326080*	
50	D 40	50.00	30.00	40.00	89.00	66.70	80.00	4.10 (kg)	K42796	
50	D 60	70.00	40.00	60.00	129.10	101.60	125.00	5.80 (kg)	326087	
50	D 60	70.00	40.00	60.00	129.10	101.60	110.00	5.50 (kg)	326088	

*For light machining only.



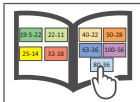
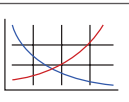
BT / JIS B 6339 Shanks

Taper Size	Connection	Shank							Weight	Part No.
		X_1	L_1	D_5	D_6	D_8	B_1			
40	D 40	50.00	30.00	40.00	89.00	66.70	80.00	1.80 (kg)	326084	
50	D 40	55.00	30.00	40.00	89.00	66.70	80.00	4.50 (kg)	326082	
50	D 60	80.00	40.00	60.00	19.10	101.60	–	8.00 (kg)	326062	

B10-M: 12-13

B10: VI-VII

Key on B10-G: 1



Ⓜ = Metric (mm)

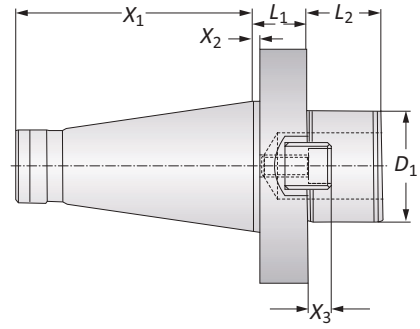
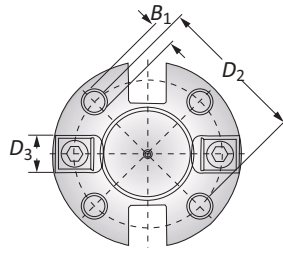
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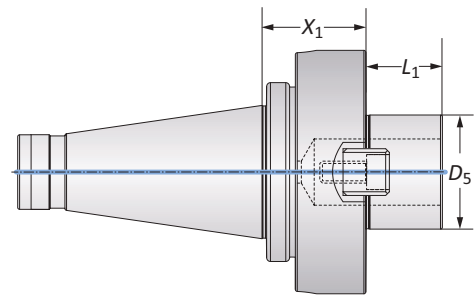
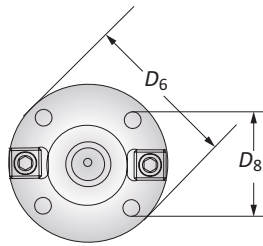
Master Shanks D 60

NMTB Shanks | DIN 2080 Shanks




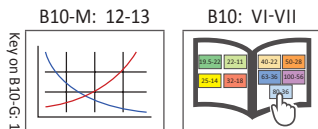
NMTB Shanks

Taper Size	Connection	Shank									Weight	Part No.
		X_1	X_2	L_1	L_2	D_1	X_3	D_2	D_3	B_1		
 50	D 60	126.80	3.20	29.00	40.00	60.00	12.50	101.60	25.40	M16	8.00 (kg)	198051T004480



DIN 2080 Shanks

Taper Size	Connection	Shank						Weight	Part No.
		X_1	L_1	D_5	D_6	D_8	B_1		
 50	D 60	55.00	40.00	60.00	128.00	101.60	-	6.80 (kg)	326035



 = Metric (mm)

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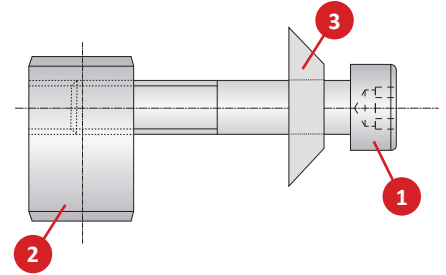
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537 Accessories

Clamping Pieces | Counterweight | Insert Holders for Abrasive Materials

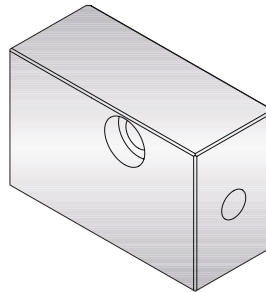
537 Clamping Pieces

Slide Type	Complete Part No.	Service Key		Replacement Components		
				1 Cap Screw	2 Clamping Nut	3 Disk Spring
Serrated Tool Bodies	137026	115578	s6 / B	215101	140118	337105
Basic and Eco Slides	137027			215102	215105	337105
Flex Slides	137019			415900	215105	337105



537 Counterweight

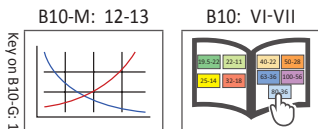
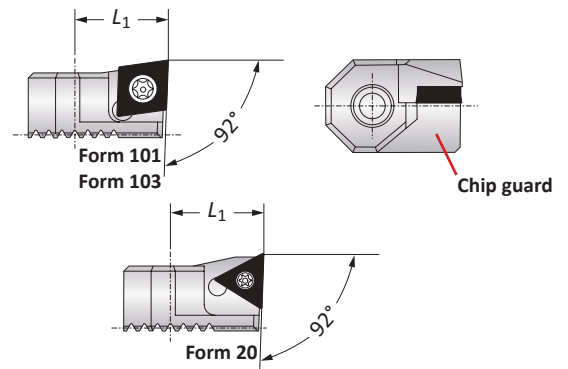
Boring Range	Part No.
m 100.00 - 3255.00	537055



NOTE: Clamping pieces sold separately.

Insert Holders for Abrasive Materials

Boring Range	L ₁	Weight	Insert Form	Part No.
m 100.00 - 3255.00	18.00	0.03 (kg)	20	211061
100.00 - 3255.00	18.00	0.03 (kg)	101	211063
100.00 - 3255.00	18.00	0.03 (kg)	103	211065



m = Metric (mm)

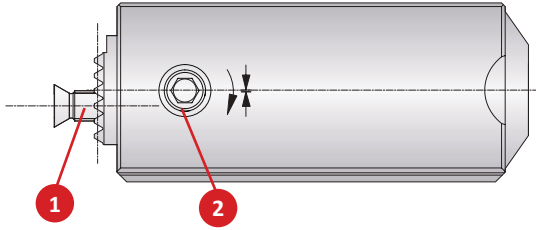
Inserts sold separately

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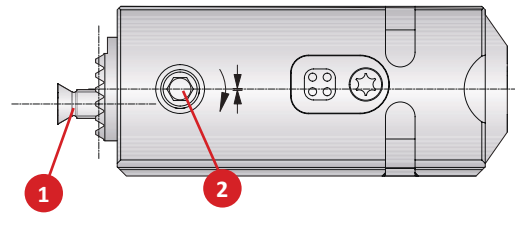
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537 Accessories | 3E^{TECH+} Accessories

Accessories



537 Analogue Cassette



537 Digital Cassette

537 Accessories

Cassette Part No.	1 Countersunk Screw		2 Clamping Screw	
	Part No.	Service Key	Part No.	Service Key
537051	215462	T20 / H	115249	s4 / F
537052	215462	T20 / H	315789	s4 / F

3E^{TECH+} Accessories

1 Charging Unit
Part No.
536016

NOTE: Charging unit sold separately from 3E^{TECH+}.

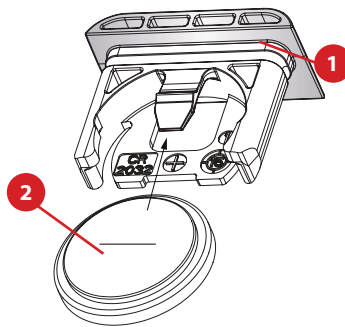


NOTE: 3E^{TECH+} adjustment accuracy of 0.001 mm on diameter.

3E^{TECH} Accessories (Old Display)

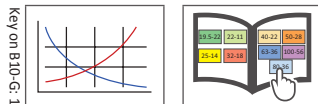
1 Sealing Ring	2 Battery CR2032
Part No.	Part No.
215483	515491

NOTE: Not required for 3E^{TECH+} (new display).



B10-M: 12-13

B10: VI-VII



m = Metric (mm)

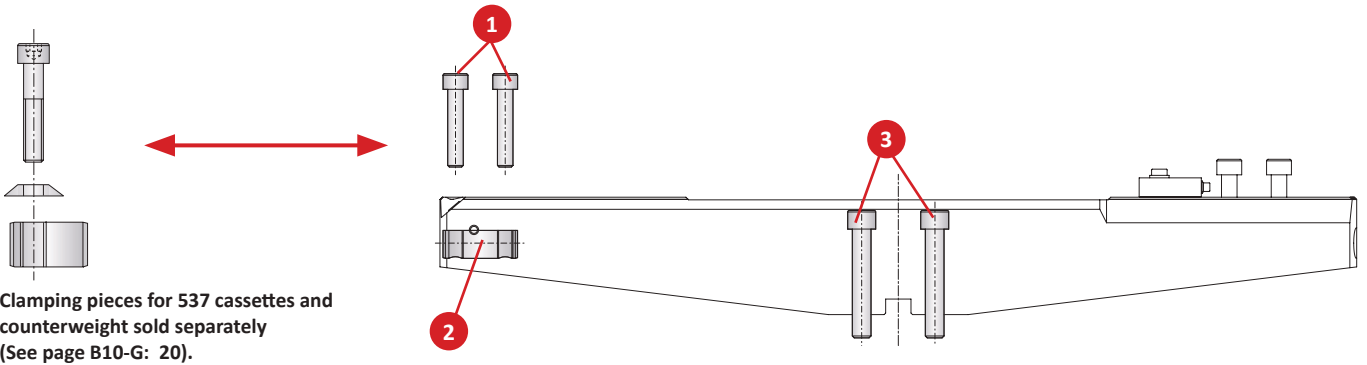
Inserts sold separately

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Serrated Slide Basic D 40 Accessories

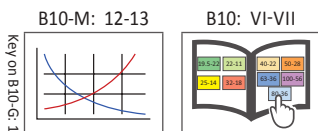
Clamping Pieces



Clamping pieces for 537 cassettes and counterweight sold separately (See page B10-G: 20).

Clamping Pieces

Connection	Serrated Slide	1 Cap Screw		2 Clamping Nut	3 Thread Pin		Cap Screw		
	Part No.	Part No.	Service Key	Part No.	Part No.	Service Key	Part No.	Service Key	
m	D 40	349021	115118	s8 / B	115669	349010	s4 / F	315186	s10 / C
	D 40	349022	115118	s8 / B	115669	349011	s4 / F	315186	s10 / C
	D 40	349023	115118	s8 / B	115669	349012	s4 / F	315186	s10 / C
	D 40	349024	115118	s8 / B	115669	349013	s4 / F	315186	s10 / C



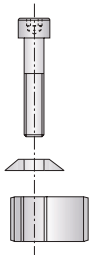
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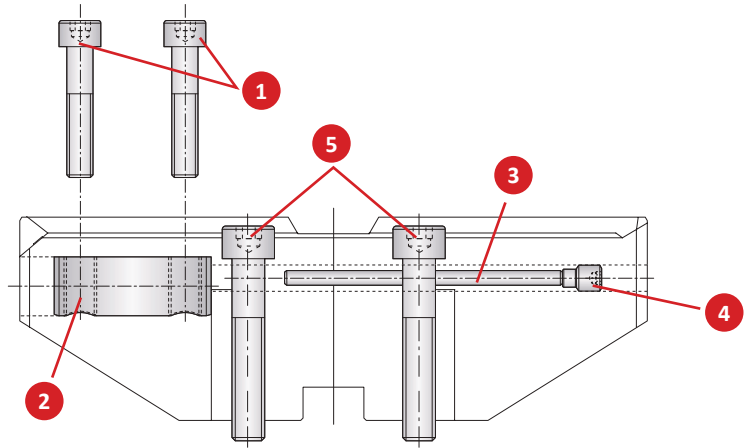
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Serrated Slide Basic D 60 Accessories

Clamping Pieces | Cover Plates



Clamping pieces for 537 cassettes and counterweight sold separately (See page B10-G: 20).

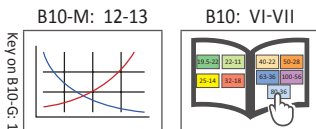
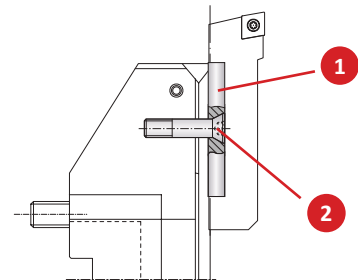


Clamping Pieces

Connection	Serrated Slide Part No.	1 Cap Screw		2 Clamping Nut Part No.	3 Adjustment Pin Part No.	4 Thread Pin		5 Cap Screw		
		Part No.	Service Key			Part No.	Service Key	Part No.	Service Key	
m	D 60	349051	115118	s8 / B	115669	141112	115196	s4 / F	115170	s14 / C
	D 60	349052	115118	s8 / B	115669	141113	115196	s4 / F	115170	s14 / C
	D 60	349053	115118	s8 / B	115669	141114	115196	s4 / F	115170	s14 / C
	D 60	349054	115118	s8 / B	115669	141115	115196	s4 / F	115170	s14 / C

Cover Plates for Basic D 60 Serrated Slides

Connection	Serrated Slide Part No.	1 Cover Plate	2 Countersunk Screw		
		Part No.	Part No.	Service Key	
m	D 60	349051	349016	063106	s4 / B
	D 60	349052	349017	063106	s4 / B
	D 60	349053	349017	063106	s4 / B
	D 60	349054	349017	063106	s4 / B



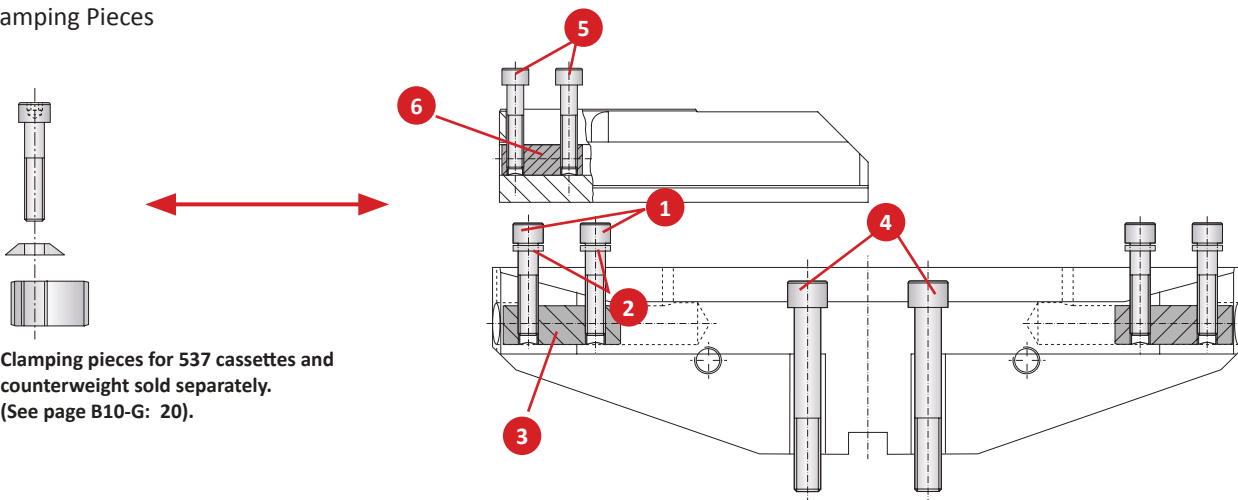
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Serrated Slide Eco D 60 Accessories

Clamping Pieces



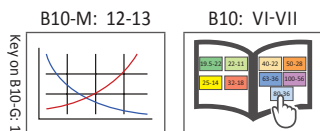
Clamping pieces for 537 cassettes and counterweight sold separately. (See page B10-G: 20).

Base Slide Clamping Pieces

Connection	Base Slide Part No.	1 Cap Screw		2 Disc Part No.	3 Clamping Nut Part No.	4 Cap Screw	
		Part No.	Service Key			Part No.	Service Key
m D 60	349005	115771	s10 / C	115737	415181	077128	s14 / C
	349006	115771	s10 / C	115737	415181	077128	s14 / C

Serrated Slide Clamping Pieces

Serrated Slide Part No.	5 Cap Screw		6 Clamping Nut Part No.
	Part No.	Service Key	
m 349014	115118	s8 / B	115669
	115118	s8 / B	115669



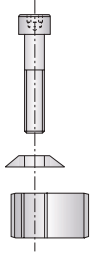
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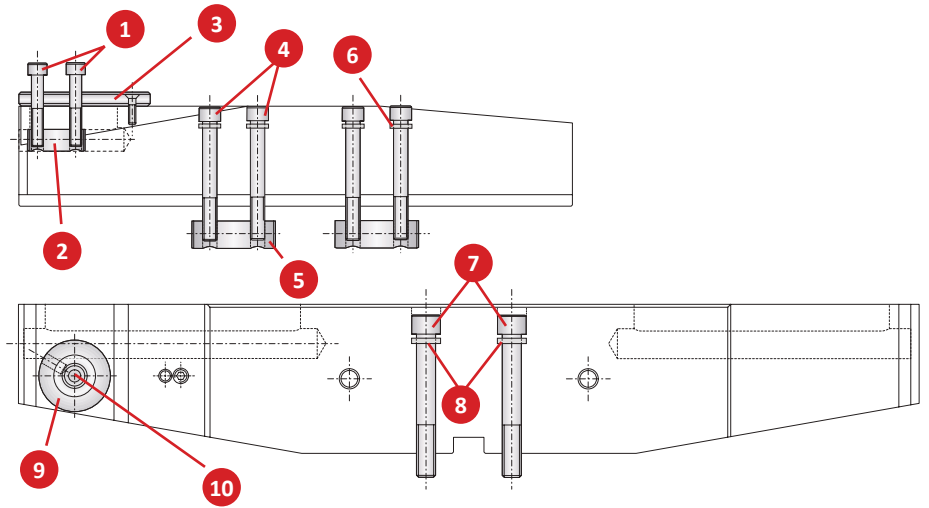
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Serrated Slide Flex D 60 Accessories

Clamping Pieces



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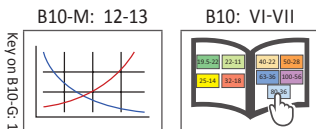


Serrated Slide Clamping Pieces

Serrated Slide	1 Cap Screw		2 Clamping Nut		3 Adapter		4 Cap Screw		5 Clamping Nut		6 Disk	
	Part No.	Service Key	Part No.	Service Key	Part No.	Service Key	Part No.	Service Key	Part No.	Service Key	Part No.	Service Key
m	349035	115307	s8 / B	115669	349043	s4 / B	315186	s10 / C	349202	415898	115737	s6 / B
	349036	115307	s8 / B	115669	349043	s4 / B	077110	s10 / C	415181	415898	115737	s6 / B
	349037	115307	s8 / B	115669	349043	s4 / B	315403	s10 / C	415181	415898	115737	s6 / B
	349038	115307	s8 / B	115669	349043	s4 / B	315415	s10 / C	415181	415898	115737	s6 / B

Base Slide Clamping Pieces

Connection	Base Slide		7 Cap Screw		8 Disk		9 Injector		10 Countersunk Screw	
	Part No.	Service Key	Part No.	Service Key	Part No.	Service Key	Part No.	Service Key	Part No.	Service Key
m	D 60	349031	115736	s14 / C	068168	s14 / C	349201	s14 / C	415898	s6 / B
	D 60	349032	415913	s14 / C	068168	s14 / C	349201	s14 / C	415898	s6 / B
	D 60	349033	215509	s14 / C	068168	s14 / C	349201	s14 / C	415898	s6 / B
	D 60	349034	415636	s14 / C	068168	s14 / C	349201	s14 / C	415898	s6 / B



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Guaranteed Test / Demo Application Form

Distributor PO #	
------------------	--

The following must be filled out completely before your test will be considered

IMPORTANT: For processing, send purchase order to your Allied Field Sales Engineer (FSE). Please clearly mark the paperwork as "Test Order."

Distributor Information

Company Name: _____
 Contact: _____
 Account Number: _____
 Phone: _____
 Email: _____

End User Information

Company Name: _____
 Contact: _____
 Industry: _____
 Phone: _____
 Email: _____

Current Process

List all tooling, coatings, substrates, speeds and feeds, tool life, and any problems you are experiencing

Test Objective

List what would make this a successful test (i.e. penetration rate, finish, tool life, hole size, etc.)

Application Information

Hole Diameter: _____ in/mm	Tolerance: _____	Material: _____ (4150, A36, cast iron, etc.)
Pre-existing Diameter: _____ in/mm	Depth of Cut: _____ in/mm	Hardness: _____ (BHN, Rc)
Required Finish: _____ RMS	State: _____ (Casting, hot rolled, forging)	

Machine Information

Machine Type: _____ (Lathe, screw machine, machine center, etc.)	Builder: _____ (Haas, Mori Seiki, etc.)	Model #: _____
Shank Required: _____ (CAT50, Morse taper, etc.)		Power: _____ HP/KW
Rigidity: _____	Orientation: _____	Tool Rotating: _____
<input type="checkbox"/> Excellent	<input type="checkbox"/> Vertical	<input type="checkbox"/> Yes
<input type="checkbox"/> Good	<input type="checkbox"/> Horizontal	<input type="checkbox"/> No
<input type="checkbox"/> Poor		Thrust: _____ lbs/N

Coolant Information

Coolant Delivery: _____ (Through tool, flood)	Coolant Pressure: _____ PSI / bar
Coolant Type: _____ (Air mist, oil, synthetic, water soluble, etc.)	Coolant Volume: _____ GPM / LPM

Requested Tooling

QTY	Item Number

QTY	Item Number

engineering.eu@alliedmachine.com

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 Kingswinford, DY6 7FR, United Kingdom

+44 (0)1384 400 900
www.alliedmachine.com



ALLIED MACHINE & ENGINEERING



WOHLHAUPTER
 Holmaking Solutions for Today's Manufacturing

Warranty Information



Allied Machine & Engineering (“Allied Machine”) warrants to original equipment manufacturers, distributors, industrial and commercial users of its products for one year from the original date of sale that each new product manufactured or supplied by Allied Machine shall be free from defects in material and workmanship.

Allied Machine’s sole and exclusive obligation under this warranty is limited to, at its option, without additional charge, replacing or repairing this product or issuing a credit. For this warranty to be applied, the product must be returned freight prepaid to the plant designated by an Allied Machine representative and which, upon inspection, is determined by Allied Machine to be defective in material and workmanship.

Complete information as to operating conditions, machine, setup, and the application of cutting fluid should accompany any product returned for inspection. This warranty shall not apply to any Allied Machine products which have been subjected to misuse, abuse, improper operating conditions, improper machine setup or improper application of cutting fluid or which have been repaired or altered if such repair or alteration, in the judgement of Allied Machine, would adversely affect the performance of the product.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Allied Machine shall have no liability or responsibility for any claim, whether in contract, tort or otherwise, for any loss or damage arising out of, connected with, or resulting from the manufacture, sale, delivery or use of any product sold hereunder, in excess of the cost of replacement or repair as provided herein.

Allied Machine shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for economic losses of any kind or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform this agreement.

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Toll Free USA and Canada:

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